

APPENDIX G

AERIAL PHOTOGRAPHS

Stocking Elementary

863 7th St NW Grand Rapids, MI 49504

Inquiry Number: 3219405.11

December 09, 2011

The EDR Aerial Photo Decade Package



EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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Date EDR Searched Historical Sources:

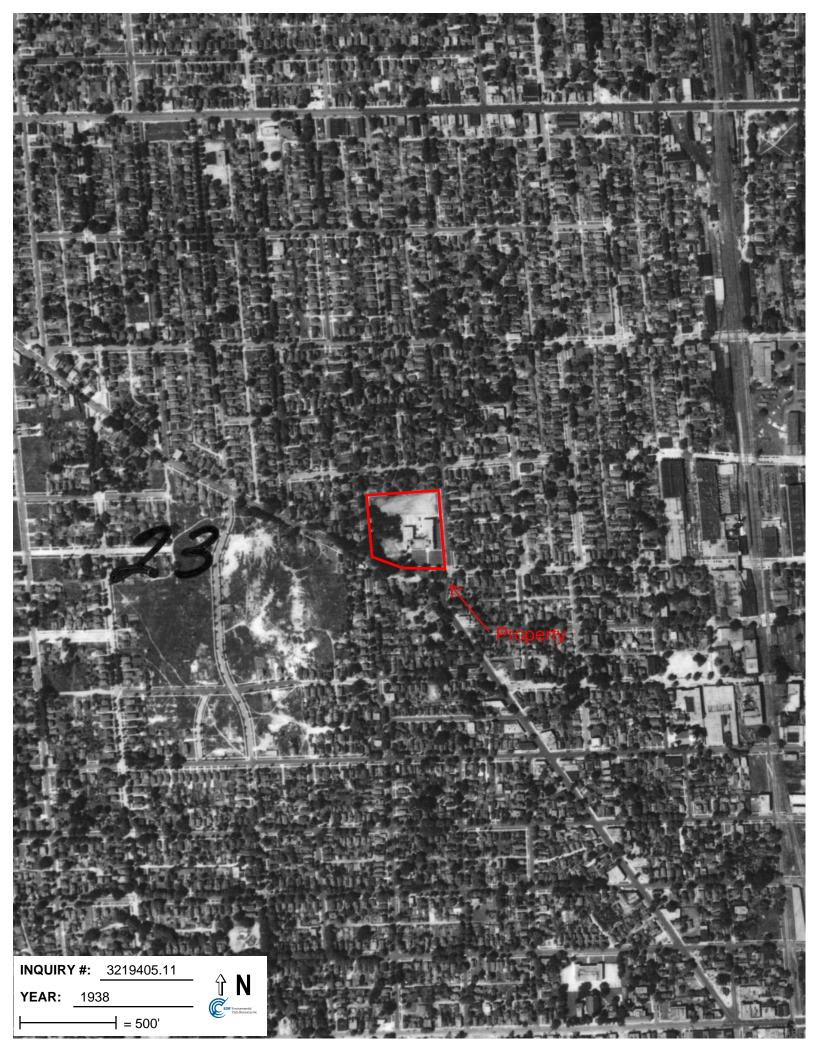
Aerial Photography December 09, 2011

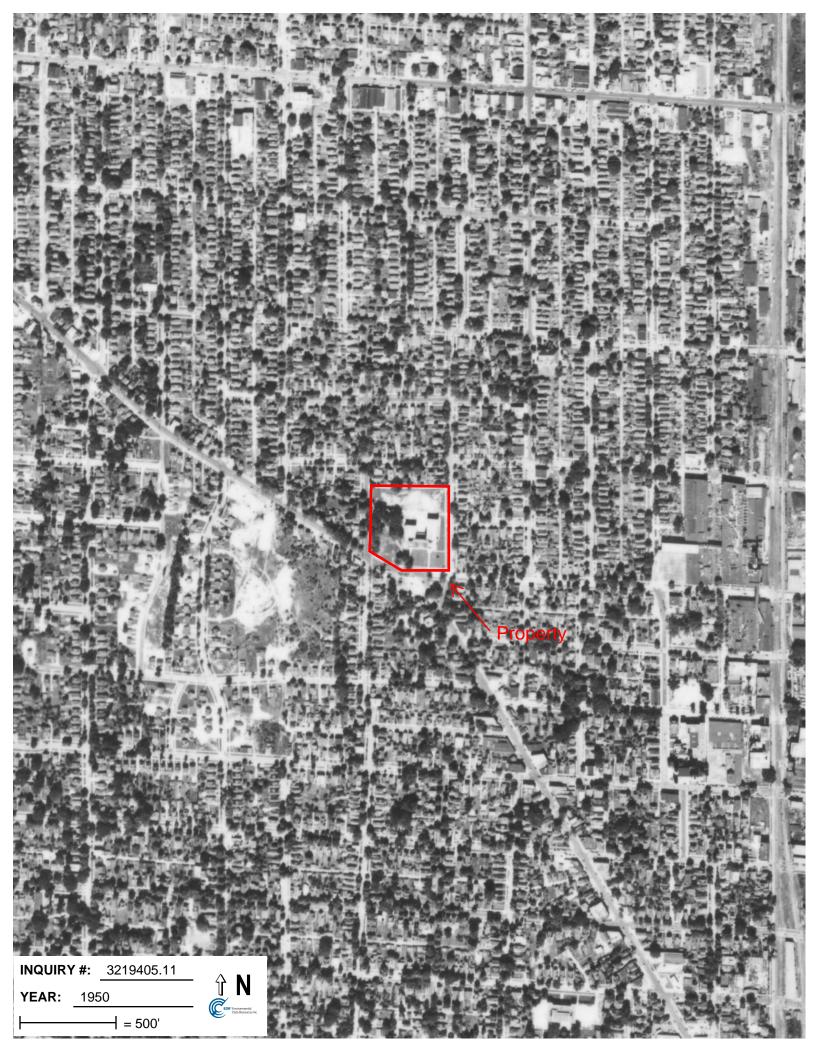
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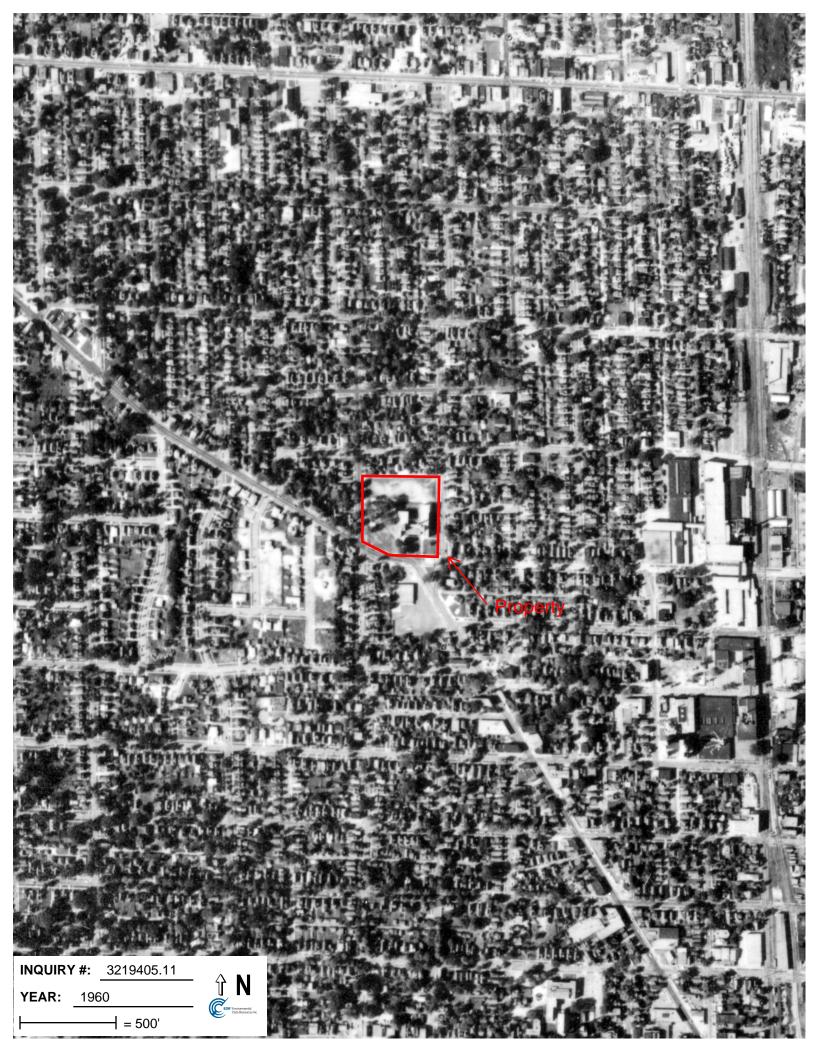
863 7th St NW

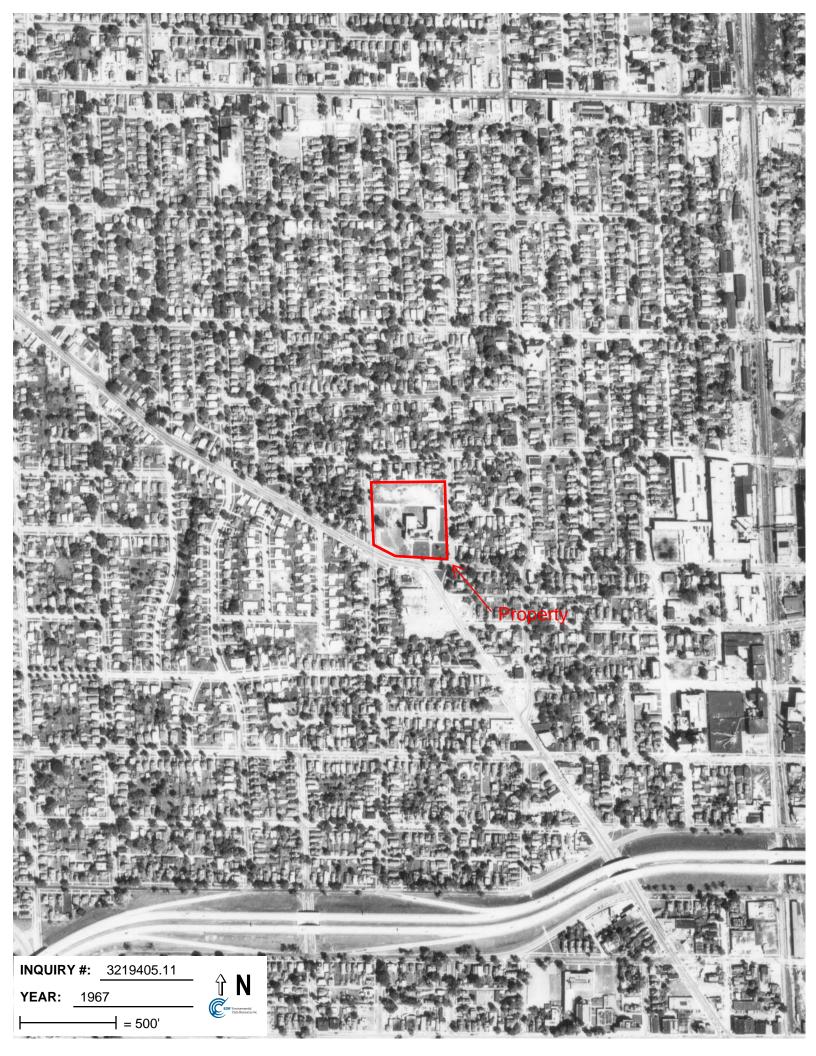
Grand Rapids, MI 49504

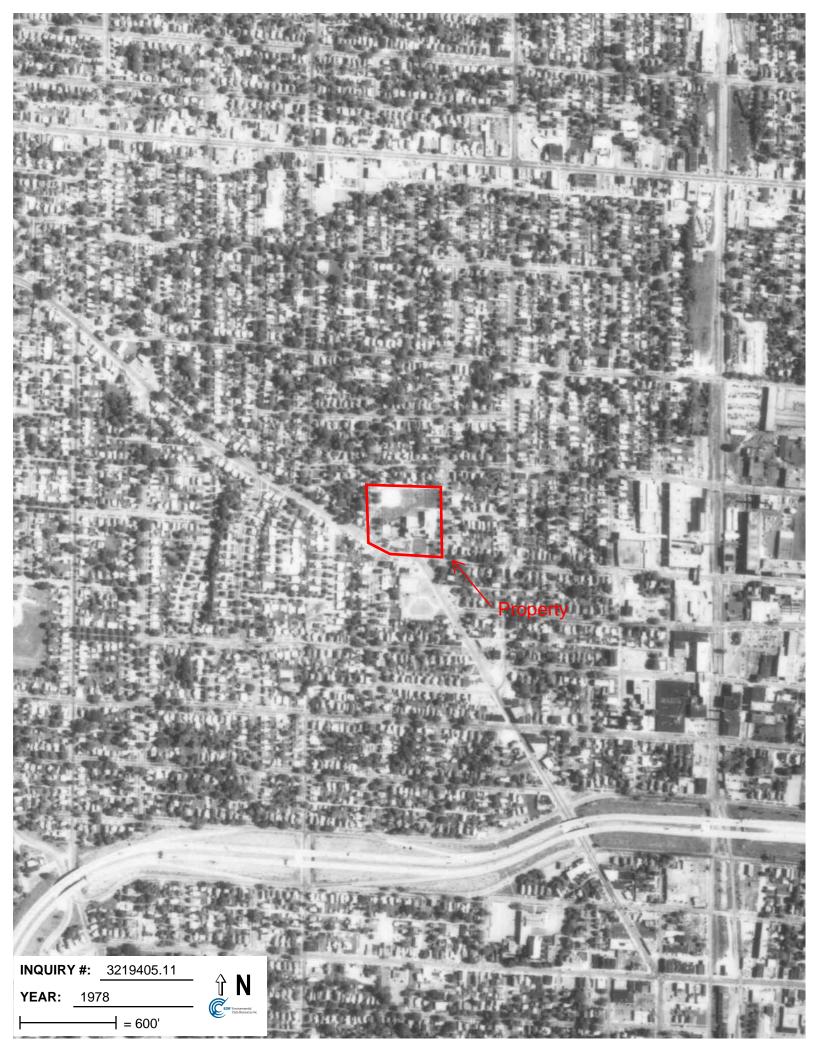
<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1938	Aerial Photograph. Scale: 1"=500'	Flight Year: 1938	AAA
1950	Aerial Photograph. Scale: 1"=500'	Flight Year: 1950	PMA
1960	Aerial Photograph. Scale: 1"=500'	Flight Year: 1960	CSS
1967	Aerial Photograph. Scale: 1"=500'	Flight Year: 1967	ASCS
1978	Aerial Photograph. Scale: 1"=600'	Flight Year: 1978	ASCS
1993	Aerial Photograph. Scale: 1"=600'	Flight Year: 1993	NAPP
1997	Aerial Photograph. Scale: unknown	Flight Year: 1997	FSA
1999	Aerial Photograph. Scale: 1"=500'	/Composite DOQQ - acquisition dates: 1999	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	EDR



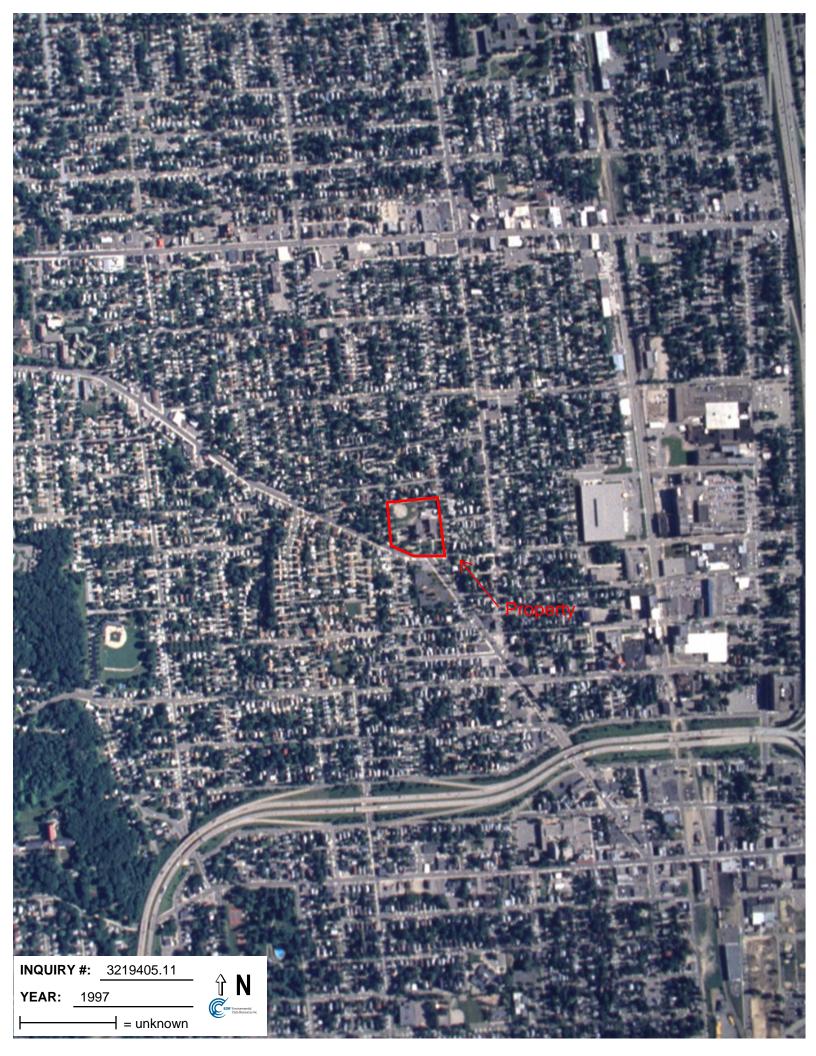




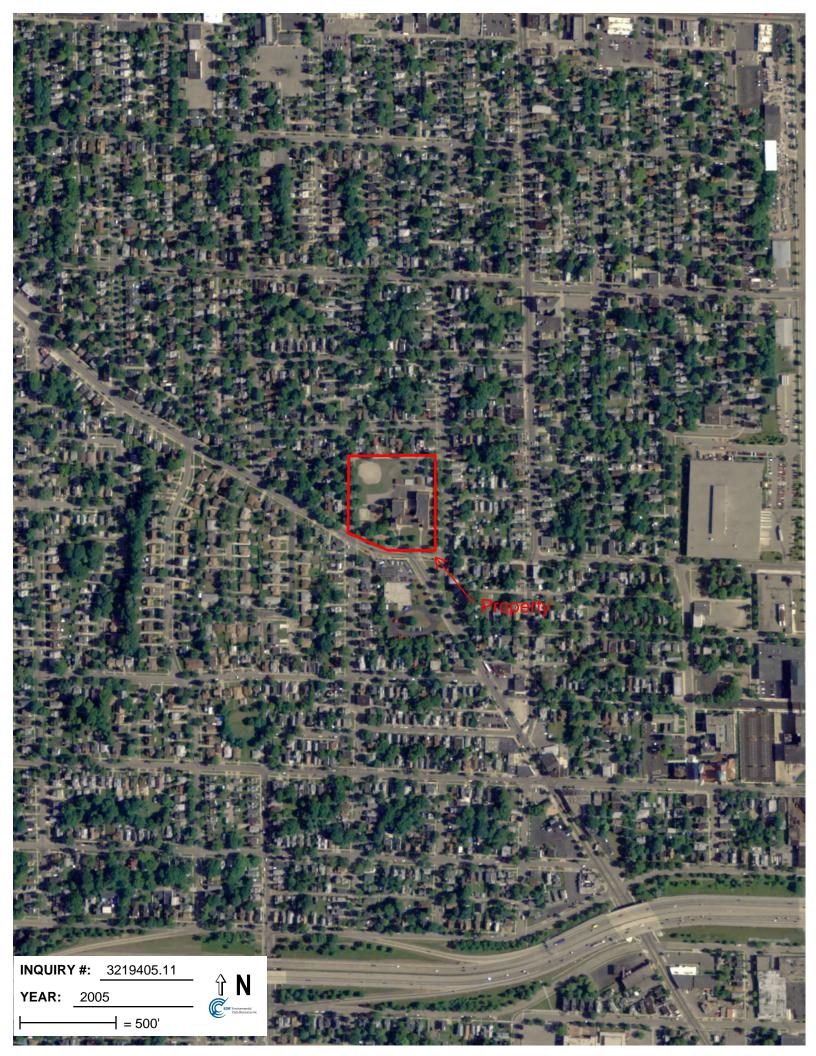
















APPENDIX H

HISTORICAL TOPOGRAPHIC MAPS

Stocking Elementary

863 7th St NW Grand Rapids, MI 49504

Inquiry Number: 3219405.10

December 06, 2011

EDR Historical Topographic Map Report



EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

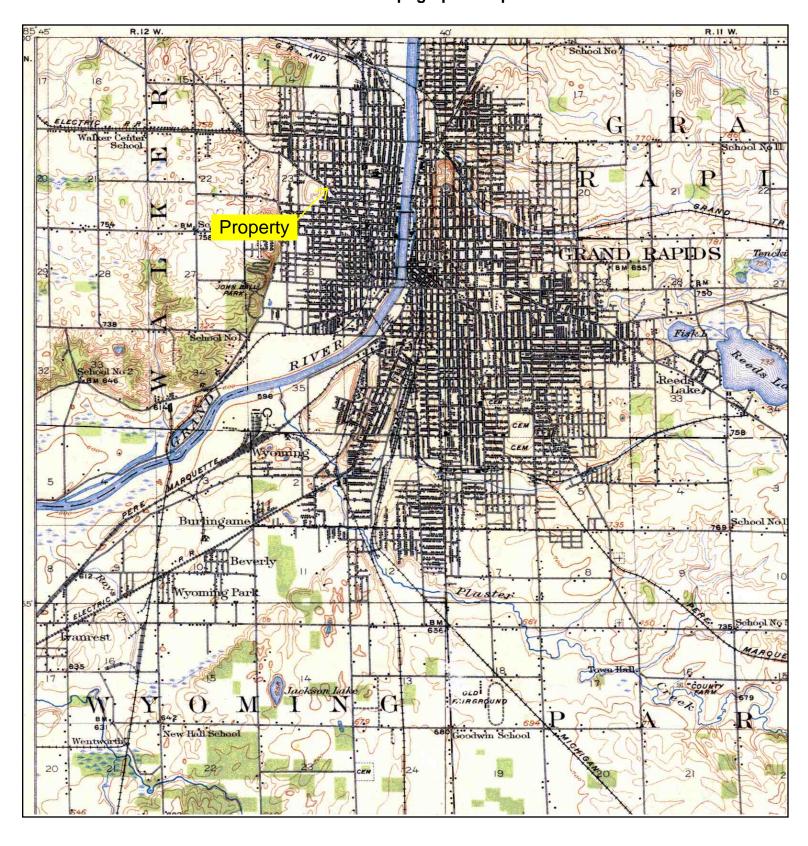
Thank you for your business.Please contact EDR at 1-800-352-0050 with any questions or comments.

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TARGET QUAD

NAME: GRAND RAPIDS

MAP YEAR: 1914

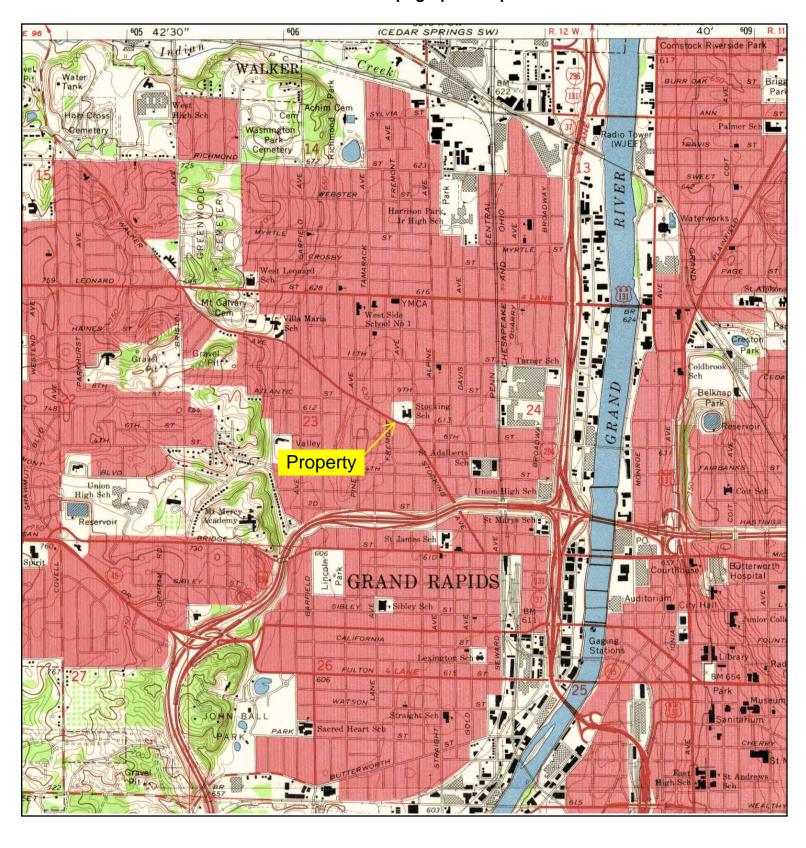
SERIES: 15 SCALE: 1:62500 SITE NAME: Stocking Elementary

ADDRESS: 863 7th St NW

Grand Rapids, MI 49504

LAT/LONG: 42.9784 / -85.6901

CLIENT: NTH Consultants Ltd.





NAME: GRAND RAPIDS WEST

MAP YEAR: 1967

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Stocking Elementary

ADDRESS: 863 7th St NW

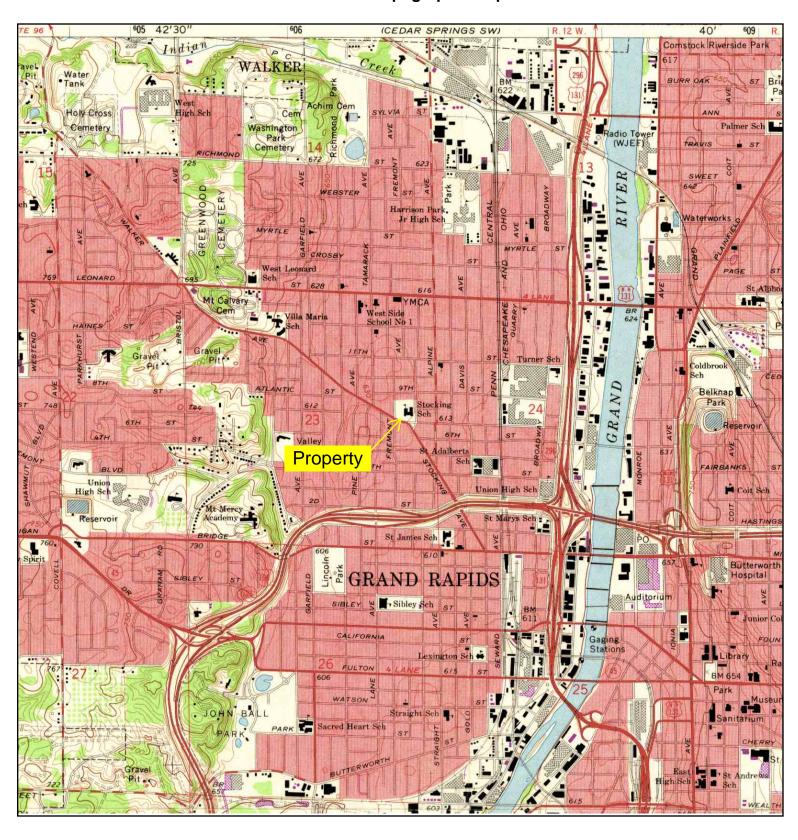
Grand Rapids, MI 49504

LAT/LONG: 42.9784 / -85.6901

CONTACT: Steve Crider
INQUIRY#: 3219405.10
RESEARCH DATE: 12/06/2011

CLIENT:

NTH Consultants Ltd.





NAME: GRAND RAPIDS WEST

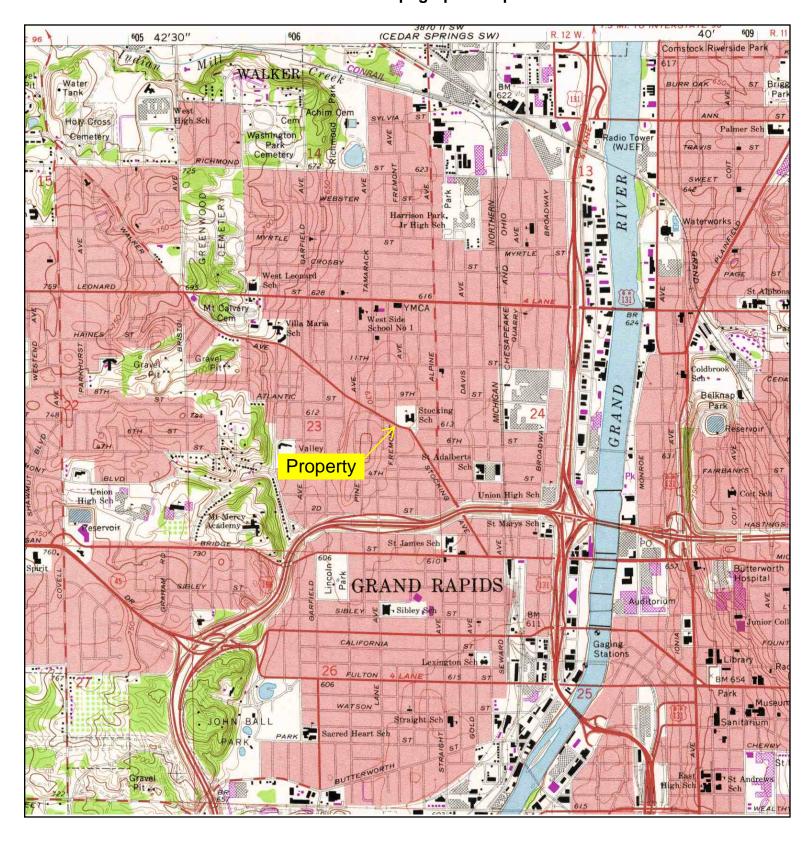
MAP YEAR: 1972 PHOTOREVISED:1967 SERIES: 7.5 SCALE: 1:24000 SITE NAME: Stocking Elementary

ADDRESS: 863 7th St NW

Grand Rapids, MI 49504

LAT/LONG: 42.9784 / -85.6901

CLIENT: NTH Consultants Ltd.



TARGET QUAD

Ν

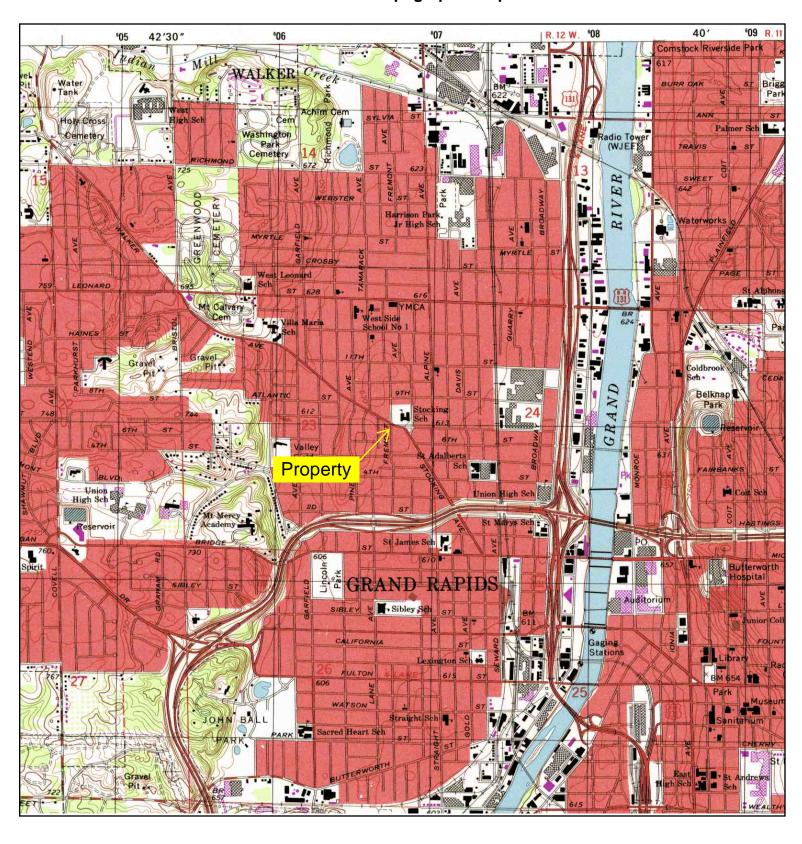
NAME: GRAND RAPIDS WEST

MAP YEAR: 1981 PHOTOREVISED:1967 SERIES: 7.5 SCALE: 1:24000 SITE NAME: Stocking Elementary ADDRESS: 863 7th St NW

Grand Rapids, MI 49504

LAT/LONG: 42.9784 / -85.6901

CLIENT: NTH Consultants Ltd.





NAME: GRAND RAPIDS WEST

MAP YEAR: 1996

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Stocking Elementary

ADDRESS: 863 7th St NW

Grand Rapids, MI 49504

LAT/LONG: 42.9784 / -85.6901

CLIENT: NTH Consultants Ltd.



APPENDIX I

RESUMES OF ENVIRONMENTAL PROFESSIONALS



Senior Vice President

Expertise

Mr. Smits has over 20 years of experience in environmental science and engineering, from performing fieldwork, design and construction oversight through managing projects, contracts and clients. His project work includes investigation and characterization of soil and groundwater at contaminated sites, feasibility studies, risk assessments, Brownfield redevelopment, site assessments for proposed real estate acquisitions, underground and aboveground storage tank removal and replacement, interim response measures, design of soil and groundwater remediation programs, and site closure reporting.

Education

Master of Science, Geotechnical Engineering; University of Michigan (1988) Bachelor of Science, Civil Engineering; Calvin College (1987)

Experience

Brownfield Redevelopment and Property Transactions Project Manager - Community and Developer Services

Directed and managed project teams performing Brownfield's redevelopment and property transaction services for numerous municipal and private clients. Services included:

- Assisted communities and developers in grant writing, completing required incentive applications, and Brownfield work plans needed to secure incentives.
- Provided technical assistance to communities establishing tax increment financing authorities such as Downtown Development Authorities, Local Development Finance Authorities, and Brownfield Redevelopment Authorities.
- Presented technical program and incentive overviews at economic development events, Brownfield workshops, and for elected officials and appointed boards.
- Provided environmental engineering services under multiple EPA Brownfield Assessment Grants and Cleanup Grants.
- Prepared Act 381 Brownfield Work Plans.
- Prepared Baseline Environmental Assessments and Section 7a Compliance Analyses (Due Care) Plans.
- Developed corrective action alternatives based on site conditions and proposed land usage.

Project Manager – Site Assessment

Supervised and directed project teams performing environmental investigations and site characterization for public and private clients, as well as regulators including the Michigan Department of Environmental Quality (MDEQ) and U.S. Environmental Protection Agency (EPA). Services included:

- Performed historical data reviews, including Phase I Environmental Site Assessments (ESAs), for insight on potential hazards and sources of contamination prior to site investigation.
- Performed investigation design and planning including project work plans with detailed scope of work to address project objectives.
 Prepared Quality Assurance Project Plans (QAPPs) in accordance with EPA guidelines



Brownfield Redevelopment and Property Transactions (cont'd) Project Manager – Site Assessment (cont'd)

- Conducted environmental investigations including drilling test borings, earthprobes, and installing monitoring wells to determine the nature and extent of subsurface contamination.
- Collected soil, groundwater, surface water, and sediment samples for laboratory testing.
- Collected groundwater and surface water samples for low-level mercury analysis.
- Monitored geophysical surveys to identify potential buried tanks, drums, utility lines, and other subsurface anomalies that may represent a source and/or preferential pathway for contaminant migration.
- Interpreted subsurface hydrogeology with respect to contaminant fate and transport.
- Performed groundwater fate and transport modeling to predict future migration of contaminant plumes.
- Developed Mixing Zone Determination Requests to evaluate whether contaminants were migrating into adjacent surface waters at unacceptable concentrations.
- Performed Risk-Based Corrective Action (RBCA) evaluations to determine cleanup criteria based on site characteristics and land use.

Project Manager – Demolition

Lead project teams in performing pre-demolition surveys, preparing specifications, and providing construction management and monitoring on waste removal and demolition projects. Services included:

- Performed pre-demolition surveys to identify waste materials and environmental concerns in abandoned commercial and industrial buildings in the City of Detroit.
- Assessed and inventoried waste materials and equipment that posed risks during demolition such as those containing asbestos, lead, mercury, and polychlorinated biphenyls (PCBs), as well as abandoned drums/containers and other potential site hazards.
- Developed waste removal and demolition specifications.
- Provided bidding support and trade contractor procurement.
- Provided construction management during waste removal and demolitions.
- Prepared construction reports to document waste removal and demolition activities.

Project Engineer – Marina Redevelopment

Conducted a Remedial Investigation, design, and remediation of a former industrial landfill site into a new riverfront marina complex, including extensive soil boring and groundwater sampling. Developed plans and obtained approval of state officials to allow on-site encapsulation of the contaminated soils in a containment cell, which was designed to incorporate a slurry wall, capping system, dewatering system, and soil retaining wall. Prepared bid documents and specifications for construction of the cell. Performed full-time monitoring of the remediation and marina construction. Sampled additional areas of contamination encountered during the construction, and evaluated and appropriately remediated in a short time frame to allow the construction to proceed on schedule. Following completion of marina construction prepared and submitted a comprehensive report of the remedial activities to state officials for closure approval.



Under/Aboveground Storage Tanks

Project Manager/Project Engineer – UST Removal/Replacement

Directed and managed the investigation, remediation, removal and replacement of leaking underground storage tanks (UST's) at 85 sites under one contract for a large municipality. The results of the project include removal and successful closure of over 100 tanks, design and installation of replacement UST systems at 17 sites, and the design and installation of equipment upgrades at eight sites.

Directed a design-build project for removing, replacing or upgrading UST's at 9 different sites for a major municipality to reduce costs and delays due to impending regulatory fines. Comprehensive audits were conducted to determine the level of compliance and assist the owner in prioritizing actions. New UST systems or upgrade components were designed, including plans and specifications, for state approval. Existing UST's were removed and new UST's or upgrades were installed, with all activities coordinated with state regulators. A total of 4 UST systems were upgraded, 12 UST's were removed and closed, and 2 new UST systems were installed. Following the installations, training was provided to site personnel on the operation of the new systems as well as record-keeping procedures.

Project Manager/Project Engineer – UST Audits/Replacement

Directed compliance audits, upgrades, removal and replacement of underground storage tank (UST) systems for a major metropolitan hospital system under a design-build delivery program. The tanks were part of the hospital's emergency generator systems and all activities were conducted in accordance with the hospital's emergency preparedness plans to maintain power generating capabilities at all times. Conducted testing and audits of existing equipment and records to determine compliance with federal and state regulations. Conducted feasibility studies and submitted recommendations for upgrading tanks not in compliance. Non-compliant tanks were then replaced or upgraded, as necessary under a design-build delivery system. Filed all required reports and registration documents with state officials, to ensure compliance with current regulations. Remediated soil contamination and free product at nine sites where releases had occurred.

Project Manager – Fuel Release Cleanup

Directed and managed the cleanup of soil and groundwater contamination from leaking underground storage tank piping. Monitored removal of the piping and tanks, performed soil investigations and a hydrogeologic investigation to define the extent of contamination and plume movement, designed and implemented a free product recovery and treatment system. The system included total fluids pumping for hydraulic control, phase separation for free product, groundwater treatment with activated carbon, and discharge to a sanitary sewer under permit. Further groundwater modeling and risk assessments demonstrated that remaining contaminant concentrations would not leave the site and were safe for onsite workers. The success of the cleanup was documented via quarterly monitoring, release closure reports were submitted to state regulators, and an Industrial closure was obtained for this site.

Environmental Investigation and Remediation Project Manager – Plating Waste Investigation

Directed and supervised the Remedial Investigation and Feasibility Study (RI/FS) of a riverfront industrial site contaminated by historical plating operations. The site history included landfilling and relocation of an adjacent river, and filling of plating waste



Environmental Investigation and Remediation (cont'd) Project Manger – Plating Waste Investigation (cont'd)

sludge lagoons. The Remedial Investigation was begun by mapping the development of the site through historical records to identify the probable former river alignment, former sludge lagoon locations, and history of building expansions. Soil borings were then performed to define the exact subsurface locations of the buried sludge lagoons and former river alignment, and to characterize the stratigraphy. Groundwater monitoring wells were installed and sampled to investigate the groundwater flow direction and quality in the vicinity of the former and current river locations. Modeling of the groundwater flow regime was then performed to assess contaminant transport of metals and chlorinated compounds from the sludge lagoons to the existing river, and a mixing zone analysis was performed to determine plume concentrations venting to the river. A focused Feasibility Study was then conducted to evaluate methods to mitigate the sludge lagoon as the source of continued groundwater impact and to remediate the contaminated groundwater plume.

Project Engineer/Manager – Riverfront Industrial Site

Directed and supervised a Remedial Investigation/Feasibility Study of a vacant, 45-acre, riverfront industrial site, which formerly housed stove manufacturing, tire manufacturing, and coal gasification operations. Reviewed historical information, prepared work plans for review by state officials, performed geophysical surveys, conducted soil borings and installed monitoring wells for soil and groundwater characterization. Performed a hydrogeologic study to model groundwater flow and the impacts of coal tar residues. Following an evaluation of all soil and groundwater data, performed a risk assessment, summarized appropriate remediation and closure options, and presented findings in a report to the owner and state officials. Performed a feasibility study to evaluate appropriate redevelopment options for the site as well as environmental impacts on future construction activities.

Project Manager – As-Needed Services Contract

Directed and supervised various emergency response and environmental cleanup activities on an as-needed service contract with a large municipality. Provided immediate response to any and all environmental emergencies directed by the owner. Performed initial responder functions, investigated the nature of the emergency, assessed the response teams and equipment needed, mobilized the necessary resources to perform the response, directed and documented the cleanup activities, and prepared summary and closure reports, as required by the owner as well as state and federal agencies.

Project Manager – Wastewater Facility Siting

Directed site assessment and waste characterization services for a large Combined Sewage Overflow (CSO) construction project. Performed site investigation activities of several parcels under consideration to assist the design team in selecting the most feasible site. Defined the extent and severity of contamination through soil and groundwater sampling, presented remediation or disposal options to the owner, and developed cost estimates for the environmental impacts on construction. Prepared portions of the construction project specifications relating to worker health and safety and handling and disposal of contaminated materials. Also performed hydrographic surveys and sediment sampling of CSO deposited wastes in an adjacent creek to develop volume estimates, performed feasibility studies for removal and disposal of the wastes, and prepared plans and specifications for dredging and disposal.



Environmental Investigation and Remediation (cont'd) Project Manager/Engineer – Abandoned Drum Site

Directed the assessment and cleanup of abandoned drums at a former Superfund site encountered during construction of a new municipal building. Sampled and characterized the contents of exposed drums, prepared the drums for shipment and disposal of hazardous wastes. Researched the site history, performed soil and groundwater sampling in the vicinity of the drums to determine the extent of subsurface contamination, conducted geophysical surveys (magnetometer) to determine the likelihood of additional buried drums, and performed a risk assessment to evaluate potential impacts on construction workers and future occupants of the site.

Environmental Compliance Audits

Project Manager - Water Facilities Compliance Audit

Directed a team of auditors to perform compliance inspections at four water treatment plants and eleven pumping stations. Developed Spill Prevention, Control, and Countermeasures (SPCC) plans for each of the facilities and implemented them within a very short time frame to avoid regulatory violations. Also performed a "waste sweep" at each of the facilities to remove and dispose improperly stored wastes, and developed appropriate waste storage procedures to comply with the SPCC goals.

Project Manager/Engineer - Compliance Audit

Performed a compliance audit at a municipal service yard with warehouses, automotive shops, mechanical shops, and fuel storage. Conducted inspections of the entire facility to identify regulatory deficiencies in practices and equipment and performed drum sampling and characterization of unidentified wastes. Developed Spill Prevention, Control, and Countermeasures (SPCC) plan and Pollution Incident Prevention (PIP) plan for appropriately storing and handling the hazardous and non-hazardous materials in use as well as wastes. Also developed a Chemical Storage and Disposal handbook for use in employee training and orientation, and conducted initial training sessions to implement the new plans.

Project Manager - Risk Management Plans

Directed and managed the development of Risk Management Plans (RMP's) at five municipal water treatment plants. The RMP's were required by the EPA due to large quantities of hazardous chlorine gas in use at the facilities. Modeling ("consequence analysis") was performed to predict the migration of chlorine gas away from the facility in the event of a catastrophic failure of chlorine equipment. A Process Safety Management (PSM) analysis was also conducted to determine the adequacy of equipment and procedures in handling chlorine and the preparedness of the plants in dealing with chlorine emergencies. After completion of the RMP's, public information sessions were conducted to alert nearby residents of the results of the consequence analysis, as required by the EPA regulations

Professional Licenses

Licensed Professional Engineer – State of Michigan

Certifications

Certified Underground Storage Tank Professional – State of Michigan 40 hour Hazardous Waste Operations Training; 8-hour yearly refresher courses, MIOSHA



Sherry L Kirkbride

Environmental Scientist

Expertise

Ms. Kirkbride has ten years of experience in environmental assessment and remediation. Projects have included site assessments, hydrogeological investigations, underground storage tank (UST) removal and closure, risk-based contaminant exposure, remediation studies and project oversight.

Education

Bachelor of Science in Environmental Studies and Applications; Michigan State University (1999)

Experience

Property Transactions

- Provided property transaction services for numerous clients.
- Prepared Baseline Environmental Assessments.

Environmental Assessments and Investigations

- Performed environmental investigations and site characterization for public and private clients.
- Performed historical data reviews, including Phase I Environmental Site Assessments (ESAs) for insight on potential hazards and sources of contamination prior to site investigation.
- Performed investigation design and planning including project work plans with detailed scope of work to address project objectives.
- Conducted environmental investigations including drilling test borings, earthprobes, and installing monitoring wells to determine the nature and extent of contamination.
- Collected soil, groundwater, surface water, and sediment samples for testing.
- Interpreted subsurface hydrogeology with respect to contaminant fate and transport.
- Performed groundwater fate and transport modeling to predict future migration of contaminant plumes.
- Performed Risk-Based Corrective Action (RBCA) evaluations to determine cleanup criteria based on site characteristics and land use.

Remediation Studies and Site Cleanup

- Performed feasibility studies to evaluate remediation alternatives based on site conditions and current or proposed land usage, and assisted with design and implementation of remediation programs.
- Assisted with remediation efforts at numerous, leaking underground storage tank sites, including sites where non-aqueous phase liquids (NAPLs) were present.
- Assisted with feasibility analysis, design, and oversight of remediation programs that involved soil excavation and disposal, application of oxygen releasing compounds to enhance natural biodegradation and vacuum-enhanced fluid recovery.



Sherry L Kirkbride

Underground Storage Tanks

- Provided UST removal and closure services at over 30 sites for private clients.
- Prepared Initial Assessment, Final Assessment, and Closure Reports in accordance with applicable regulatory requirements.
- Monitored UST removal and remediation activities.
- Designed, coordinated, and performed subsurface investigations to characterize the extent of petroleum contamination from leaking USTs.
- Assisted with evaluation of corrective action plans, including free product abatement.

Certifications and Training

40-hour HAZWOPER Training and Annual 8-hour Refreshers



APPENDIX J

USER PROVIDED INFORMATION

ABATEMENT PROJECT SUMMARY REPORT

Project Information: Date: Sure 6, 1998
school Building: Stocking Hem.
Address: 863 7th St nw
GR MI 49504
Phone Number: 616-711-3130
Brief Description of Work: Remark of advistors maturals
from pipes a ductionsk in school attic
Start Date: A-14,1995 Completion Date: Sept 11,1995
Contractor Information:
Name: Notional Environmental Sych
Address: 300 Franklin
Brighton mI 48116
Phone Number: \$10-327-8011
Hygienist Information:
Name: 62A Ges Environmental
Address: 2930 3 mil Rano
6R ONT 49504
Phone Number: 616-791-)400

Further information regarding this abatement project is on file at the Facilities Management Office. This information includes: job specification, job notification record, contractor employee training certificates and respiratory protection records, air sample and clearance data, waste disposal records, and job daily log information.

Contact Bob Langerak, Asbestos Program Manager, at 771-3010, for further information regarding this abatement project.

ABATEMENT PROJECT SUMMARY REPORT

Project Information:	Date: June 6, 1995
school Building: Studeing	Elem.
Address: 863 Seventh	Stra
6 R	49504
Phone Number: 6(6-771-3	<u> </u>
Brief Description of Work:	Removal of pope 2 pope
	S. Vices
Start Date: 7/17/95	Completion Date: 8/11/95
Contractor Information:	
Name: Hazarbestos Inc	
Address: 3170 Apollo 1	Nive
Lansing, MI	
Phone Number: 517-886-3	
Hygienist Information:	
Name: 62A Geo Environ	wrestal
Address: 2930 3 mile	ed no
COR MI	19504
Phone Number: 616-791-7408	
et	

Further information regarding this abatement project is on file at the Facilities Management Office. This information includes: job specification, job notification record, contractor employee training certificates and respiratory protection records, air sample and clearance data, waste disposal records, and job daily log information.

Contact Bob Langerak, Asbestos Program Manager, at 771-3010, for further information regarding this abatement project.

ASBESTOS ACTIVITY RECORDREEPING SHEET

SCHOOL NAME STOCKIN	-6-
AREA, FLOOR, ROOM NUMBER	——————————————————————————————————————
TYPE OF ACTIVITY: (Check Al	
ACM_Inspection	a .
•	Abatement Pre-Inspecti
Repair/Encapsulate	Abatement Inspection
Remove	Abatement Final Inspec
Update Management Plans	Abatement Pre-Clear
Background Air Samples	Abatement Final Clear
DESCRIPTION OF ACTIVITY: Res	PAIR + ENCUSCOLATE DAMACED MEM PIPE
350 C 350 C 43711 C 100 5 7X	Servis.
Name(s) of Person(s) involved:	Date(s) & total hours of involvement per date
BRUG JOHNSON	SEPT 28 1994 2 110002
Ronlander Zmo	
Materials used:	
- LAG KWICK & LAGKOTE	i
Description of Disposal:	
-	
	,
igned for July	Date 9/28/44
L/kmh 8/22/89	

ASBESTOS ACTIVITY RECORDREEPING SHEET

SCHOOL NAME STOCK	ING
AREA, FLOOR, ROOM NUMBER G	LYM FAN FOOM 2 ND FLOOR
TYPE OF ACTIVITY: (Check Al.	l That Apply)
ACM Inspection	Abatement Pre-Inspection
Repair/Encapsulate	Abatement Inspection
Remove	Abatement Final Inspect
Update Management Plans	Abatement Pre-Clear
Background Air Samples	Abatement Final Clear
•	EMOVE 5' OF ACM PIPE COULT
Name(s) of Person(s) involved:	Date(s) & total hours of involvement per date
RON CHAMER ZAND	1/29/92 2 Hours
- RRUCE TOHNSON	
Materials used:	
- 1 GLOVE BAG, & DISPOSAL BA	OGS, DUCT TAPE, WETTING AGENT, HEARLY
Description of Disposal: (A)	D STORACE BINS.
Signed Fon Carder Rand	Date //29/93
BL/kmh 8/22/89	

ASBESTOS ACTIVITY RECORDREEPING SHEET Slocking SCHOOL NAME AREA, FLOOR, ROOM NUMBER (Check All That Apply) TYPE OF ACTIVITY: Abatement Pre-Inspection ACM Inspection Abatement Inspection Repair/Encapsulate Abatement Final Inspect Remove Abatement Pre-Clear Update Management Plans Abatement Final Clear Background Air Samples DESCRIPTION OF ACTIVITY: KEMOVE 3' SECTION OF ACM PIPE COVER FROM STEAM LINE + REPAIR STEAM LEAK. WET DEBRIS FROM TURNEL FLOOR Date(s) & total hours Name(s) of Person(s) involved: of involvement per date Materials used: REPAIR CLAMF SAA STORAGE Description of Disposal: ____ BL/kmh

ASBESTOS ACTIVITY RECORDREEPING SHEET SCHOOL NAME AREA, FLOOR, ROOM NUMBER FAN FROOM & ATTIC TYPE OF ACTIVITY: (Check All That Apply) Abatement Pre-Inspection ACM Inspection Abatement Inspection Repair/Encapsulate Abatement Final Inspect Remove ____ Abatement Pre-Clear Update Management Plans Abatement Final Clear Background Air Samples DESCRIPTION OF ACTIVITY: REPAIR & ENCAPSIANCE DAMAGED ARE & OPEN ENDS ON ACM PAPE COVER IN FAN ROOM. ROPAIR NEW IN PIPE INSULATION IN ATTIC AREA. Date(s) & total hours Name(s) of of involvement per Person(s) involved: Materials used: Description of Disposal: BL/kmh 8/22/89

ASBESTOS ACTIVITY RECORDREEPING SHEET

SCHOOL NAME	
AREA, FLOOR, ROOM NUMBER	ATTIC
TYPE OF ACTIVITY: (Check All	That Apply)
ACM Inspection	Abatement Pre-Inspection
Repair/Encapsulate	Abatement Inspection
Remove	Abatement Final Inspect
Update Management Plans	Abatement Pre-Clear
Background Air Samples	Abatement Final Clear
20	
211	91R 2 ENCAPSOLATE ACM PIACE COMER
• •	UCT WORK & CUT OUT SECTION OF DUC
ON EOW ENDS OF BULDING	PICK UP LOSSE DEBRI.
Name(s) of Person(s) involved:	Date(s) & total hours of involvement per date/20/90 8 Hours
RON VALOUR ZALO	4/23/90 8 HOURS
BRUCE JOHNSON	4/24/90 8 HOURS
	4/25/96
Materials used:	
	a to - 2 and a suppose a strat plant
DUT TOOK JOHN TO ASE	BUSTOS BAGS GMILL PLASTIC WUTTING NGWNT
DUCT TAPE, ZAWZ-ALL - HEPA V Description of Disposal:	SAA STORAGE BINS
<u>-</u>	
•	
Signed Fortale Las	Date 4/24/90
BI./kmh 8/22/89	>

ASBESTOS ACTIVITY RECORDKEEPING SHEET

SCHOOL NAME STO	CICKING
AREA, FLOOR, ROOM NUMBER	ATTIC
TYPE OF ACTIVITY: (Check All	l That Apply)
ACM Inspection	Abatement Pre-Inspection
Repair/Encapsulate	Abatement Inspection
Remove	Abatement Final Inspect
Update Management Plans	Abatement Pre-Clear
Background Air Samples	Abatement Final Clear
DESCRIPTION OF ACTIVITY:	REMOVE 6' OF DEM
PIPE COUER FROM	STEAM LINE. REPAIR 2 ENCAPSUL
@~n5	, , , , , , , , , , , , , , , , , , , ,
Name(s) of Person(s) involved:	Date(s) & total hours of involvement per date
BRUCE JOHNSON	1/31/90
ROW UNNOUR ZAND	4 HOURS
Materials used:	
4 ASPUSTOS RAGS HUPI	A VAC, LAG KWICK, LAG KOTE
, , , , , , , , , , , , , , , , , , , ,	
Description of Disposal:	SAA STORAGE BIN
A	
Signed Fon Clark Tall	
BL/kmh 8/22/89	

ASBESTOS ACTIVITY RECORDKEEPING SHEET

SCHOOL NAME STOCK	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
AREA, FLOOR, ROOM NUMBER	ATTIC
TYPE OF ACTIVITY: (Check All	That Apply)
ACM Inspection	Abatement Pre-Inspect
Repair/Encapsulate	Abatement Inspection
Remove	Abatement Final Inspe
Update Management Plans	Abatement Pre-Clear
Background Air Samples	Abatement Final Clear
DESCRIPTION OF ACTIVITY:	CLEAN UP ALL ACM DEBRI
ON MITIC FLOOR	
Name(s) of Person(s) involved:	Date(s) & total hours of involvement per date 12/18/89 + 12/19/89
PON UNNOUS ZAND	10 Heurs
Materials used: 6 ASBESTES BAGS Description of Disposal:	SAA STORAGE BINS
Signed <u>Fon Vande- Zul</u> BL/kmh 8/22/89	Date /2/19/89

BULK SAMPLES SUMMARY SHEET

SCHOOL

Stocking Elem

863 Seventh NW

202	30 22	2/	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12		10	9	8	7	6	5	4	3	2	_	# :
											GRSE 18	GRSE 17	GRSE 16	GRSE 15	GRSE 14	GRSE 13	GRSE 12	GRSE 11	GRSE 10	GRSE 09	GRSE 08	GRSE 07	GRSE 06	GRSE 05	GRSE 04	GRSE 03	GRSE 02	GRSE 01	SAMPLE#
											Smoke duct	Firewall	Elbow	Floor Tile	Pipe wrap	Drywall	Ceiling Tile	Ceiling Tile	Ceiling Tile	Hard Plaster	Hard Plaster	Hard Plaster	Hard Plaster	Drywall	Air duct	Elbow	supply line	Air duct	MATERIAL SAMPLED
											on top of boiler	at back of boiler	rm # tunnel access	kit storage mastic	rm 5 tunnel access	boys 2nd fl rr	SW stairs	#11	rm 14 in entry	2nd fl, righgt mid of new fire	attic air passage	NW corner S air passage	E/W air passage, attic	upper air tower	NE attic hall end	NE side of attic	Attic NW sec	Attic NW sec	LOCATION
											8/8/88	8/8/88	8/8/88	8/8/88	8/8/88	8/8/88	8/8/88	8/8/88	8/8/88	8/8/88	8/8/88	8/8/88	8/8/88	8/8/88	8/8/88	8/8/88	8/8/88	8/8/88	DATE
																													SAMPLER(S)
											TrustTherm/IEC 60% C	TrustTherm/IEC	TrustTherm/IEC 50% C	TrustTherm/IEC	TrustTherm/IEC	TrustTherm/IEC	TrustTherm/IEC	TrustTherm/IEC	TrustTherm/IEC	TrustTherm/IEC	TrustTherm/IEC	TrustTherm/IEC	TrustTherm/IEC	TrustTherm/IEC	TrustTherm/IEC	TrustTherm/IEC	TrustTherm/IEC 85% C	TrustTherm/IEC 90% C	Processed/Lab
											60% C	None Detected	50% C			None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	TrustTherm/IEC 30% C 5% A 5% CR	85% C	90% C	RESULTS				

Code: (CR = Crocidolite) (A = Amosite) (C = Chrysotile)

BULK SAMPLING FORM

TRUST THERMAL SYSTEMS 629 E. SHERIDAN RD. LANSING, MI 48906

SENT TO:

Industrial Environmental Consultants 1350 East Lake Lansing Rd. East Lansing, MI 48823 (517) 351-4002

Homogeneous Area (see maps)

GRAND RAPIDS PUBLIC SCHOOLS STOCKING ELEMENTRAY 863 Seventh Street NW Grand Rapids, MI 49504 Area 1 = Area 2 = Area 3 = Area 4 =

Submitted by: TERRY FULK # I 0109

		·		· · · · · · · · · · · · · · · · · · ·	
Result	Samp	le ID	-+	Area mm/dd/yy +	Location
	GRSE-1			8/8/88	Old air duct, 200 ln. ft. Attic, NW sec. NF
C 85%	"	02		11	Supply 6" line, 100 ln. ft. Attic, NW sec in SE corner
C30,A5, CR5%	12	03		ät	Elbow, NE side of attic hall
UNDA	*1	04	0	11	Air Duct, NE attic hall end
ND	"	05		tr	Drywall, upper air tower, attic, Drywall, 8 window panels 3x5
ND	41	06		33	HP, E/W air passage , attic
		07	0	"	HP, NW corner S air passage attic
	17	08	0	51	HP, attic - air passage
ND	*1	09		16	2nd floor, HP, right middle of new fire escape
ND	63	. 10		. 19	Rm 14 C-tile in entry at hall "worm & hole" pattern
ND	11	11		11	C-tile #11 12x12 "random hole"
ND	••	12		r,	SW stair, C-tile 1x1 "ordered hole"
ND	, p1	13		13	Boys 2nd r/r, D-wall 10x15
C 60%	11	14		i i	Rm 5, tunnel acces, PW
ND	11	15		n	Kit storage tile mastic
C 50%	**	16		u	El, rm. # , tunnel access
ND	11	17		"	Boiler room - firewall @ back of boiler
C 60%	64	18		n	Smoke duct on top of boiler

POLARIZED LIGHT MICROSCOPY RESULTS INDUSTRIAL ENVIRONMENTAL CONSULTANTS, LTD.

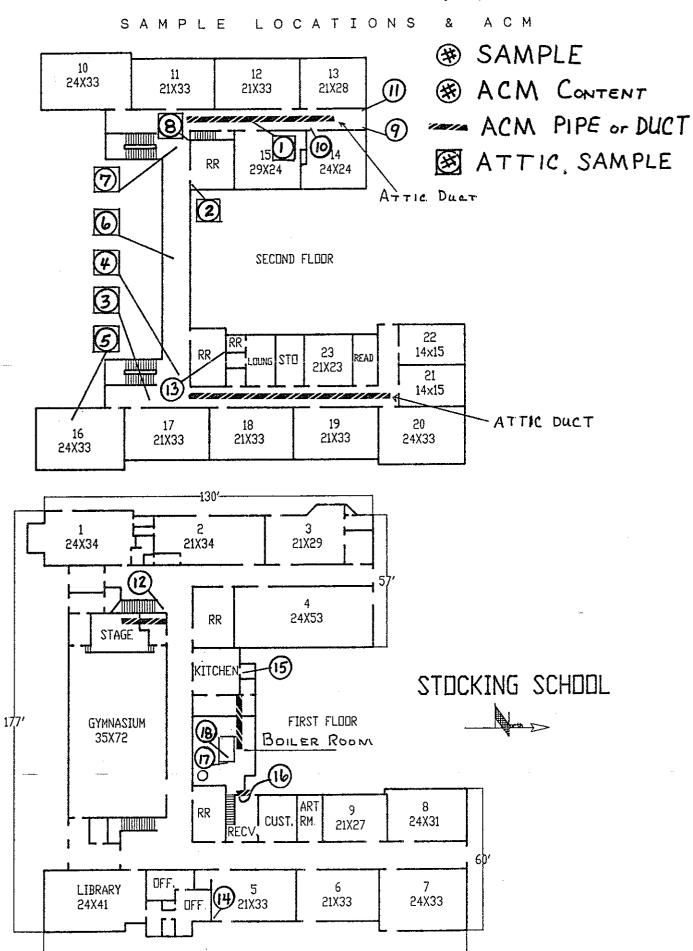
CLIENT: Trust Thermal Systems

PA#: 8932

DATE: August 15, 1988

ATTENTION: Mr. Terry Fulk DATE: August 15, JOB SITE: Grand Rapids Public Schools - Stocking Elementary

CLIENT ID	IEC LAB NO.	ASBESTOS TYPE	8	NON-ASBESTOS TYPE	%
				š	
GRSE-1-1	16100	Chrysotile	90	Mortar	10
GRSE-1-2	16101	Chrysotile	85	Mortar	15
GRSE-1-3	16102	Chrysotile Crocidolite Amosite	30 5 5	Mortar	60
GRSE-1-5	16103	N.D.	<1	Mortar Cellulose Fibrous Glass	90 5 5 5
GRSE-1-6	16104	N.D.	<1	Mortar	100
GRSE-1-9	16105	N.D.	<1	Mortar	100
GRSE-1-10	16106	N.D.	<1	Mineral Wool Cellulose Polystyrene Mortar	35 35 25 5
GRSE-1-11	16107	N.D.	<1	Mortar Cellulose Fibrous Glass	95 1 s 4
GRSE-1-12	16108	N.D.	<1	Mortar	100
GRSE-1-13	16109	N.D.	<1	Mortar Cellulose	85 15
GRSE-1-14	16110	Chrysotile CONTINUED	60	Cellulose Mortar	30 10



and the state of

ASBESTOS FIRE DOORS

The location of all known or assumed asbestos-containing fire doors in this building can be found in the asbestos location section of this book. All of the remaining fire doors are asbestos free. Some were removed from the Management Plan because they contained no ACBM and others were added to the building after 1990 and therefore are asbestos free and will not be found in the Management Plan (see the accompanying certification). We are only keeping track of known or assumed asbestos-containing fire doors from this point on.

Bruce Johnson 3-12-98

JAN 26 '98 15:36 FF

7789816356 TO 19202331273

P. 82/89

Georgia-Pacific



GEORGIA-PACIFIC MINERAL CORE MATERIAL SAFETY DATA SHEET 73C Page 1 of 4

MATERIAL SAFETY DATA SHEET

Effective Date: 2/20/95 Supercedes Oate: 4/8/92

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Mineral Core

PRODUCT USE: Care fo

Core for firedoor and lemperature rise doors

MANUFACTURED BY:

Georgia-Patific Corporation 133 Peachtree Street, N.E.

E0E0E AD ,straitA

(404)987-3190 (Technical Information) (404)652-5119 (MSDS Request)

SECTION 2. COMPOSITION INFORMATION ON INGREDIENTS

*··				
COMPONENT	% BY WT.	CAS NO.	OSHA PEL	ACGIH ILV
Gypsum (calcium sulfate)	10-30	7778-18-9	15 mg/m ³ Total Dust 5 mg/m ³ Respirable Dust	10 mg/m ³ Total Dust
Parlice	50-75	NONE	15 mg/m³ Total Pust	10 mg/m³ Total Oust
		•	5 mg/m² Respirable Dust	
Portland Camens	1-15	65997-15-1	10 mg/m ³ Total Dust	10 mg/m³ Total Dust
			5 mg/m³ Respirable Duct	
Polyvinyl Alcohol	1-5	9002-89-5	None	None
Plenglass Continuous	<1	G5997-17-3	15 mg/m³ Total Dust	10 mg/m³ Total Dust
Filament (nonrespirable)		•		

Gyosum, perlite and portland coment contain naturally occurring crystalline silica, generally of the quartz form. Due to its natural occurance, the exact percentage of crystalline silica is unknown. Both the OSHA PEL and ACGIH TLV are 0.1 mg/m² for respirable quartz dust.

Exposure limits are in accord with those recommended by OSHA in the 1989 revision of PELS.

SECTION 3. HAZARDS IDENTIFICATION

DESCRIPTION: Gray composite door core panel

EMERGENCY OVERVIEW

Curting, sanding or otherwise machining this product(s) may generate large amounts of dust. Dust may cause upper respiratory tract, lung, nasal, eye and skin interior.

POTENTIAL HEALTH EFFECTS

SKIN CONTACT: Handling may cause dry skin. Purblind tement may cause dermatitis. Glass fibers may produce itching and temporary irritation.

INHALATION: The continuous filament fiberalass contained in this product is considered nonresoirable.

Cutting, sanding or otherwise machining this product, however, may generate dust including glass fiber dust.



Material Safety Data Sheet Mineral Core Fire Doors

Weyerhaeuser Company Tacoma, WA 98477

Emergency Phone: (206) 924-5000

Additional Information: (206) 924-3865

le Preductification

Product	Manufacturing Location
Mineral Core Fire Dears	
Mineral Core Fire Doors	Marshfield, WI

Synonyms: 45, 60, or 90 Minute Fire Doors.

แอบรถเดินสำคัญโทยไอโซต์กอโซต์อาเซนอีกรรรฐ

Name	CAS#	Percent	Agency	Exposure Limits	Comments
Calcium silicate	1344-95-2	51-73	OSHA OSHA ACGIH	PEL-TWA 15 mg/m3 PEL-TWA 5 mg/m3 TLV-STEL 10 mg/m3	Total dust Respirable dust fraction Total dust containing no asbestos and <1% crystalline silica
Door Faces:		17			
- Wood	None		See below under wood		
- Paper (cellulose)	9004-34-6		OSHA OSHA ACGIH	PEL-TWA 15 mg/m3 PEL-TWA 5 mg/m3 TLV-TWA 10 mg/m3	Total dust Respirable dust fraction Total dust
- Plastic	None		OSHA OSHA	PEL-TWA 15 mg/m3 PEL-TWA 5 mg/m3	Total dust Respirable dust fraction
 <u>-</u>			ACGIH	TLV-TWA 10 mg/m3	Total dust
Inert Ingredients ¹	Proprietary information ¹	6-9	OSHA OSHA ACGIH	PEL-TWA 15 mg/m3 PEL-TWA 0.1 mg/m3 TLV-STEL 0.1 mg/m3	Total dust Respirable dust fraction Respirable factor containing respirable quartz
Wood	None	4-8	OSHA	PEL-TWA 15 mg/m3	Total dust
•			OSHA ACGIH ACGIH ACGIH	PEL-TWA 5 mg/m3 TLV-TWA 5 mg/m3 TLV-STEL 10 mg/m3 TLV-TWA 1 mg/m3	Respirable dust fraction Softwood total dust Softwood total dust Selected hardwood total dust (beech, oak, others)
			Recommended ²	PEL-TWA 5 mg/m3	Softwood or hardwood total dust
	"		Recommended ²	PEL-STEL 10 mg/m3	Softwood or hardwood total dust
			Recommended ²	PEL-TWA 2.5 mg/m3	Western red cedar total dust
Resin Solids	None	<1	OSHA ACGIH	None None	None
Composite material ¹	Proprietary information ¹	0-15	OSHA OSHA ACGIH	PEL-TWA 15 mg/m3 PEL-TWA 5 mg/m3 TLV-TWA 10 mg/m3	Total dust Respirable dust fraction Total dust containing no asbestos and <1% crystalline silica
			OSHA ACGIH OSHA ACGIH	PEL-TWA 0.1 mg/m3 TLV-TWA 0.1 mg/m3 PEL-TWA 5 mg/m3 TLV-TWA 10 mg/m3	Respirable dust fraction Respirable dust fraction Total dust Total dust

FIRE DOORS

The Management Plan states that all fire doors in this building are assumed to contain asbestos material. During the reinspection we found that some of these doors were hollow or they were filled with fiber glass. Therefore, we are eliminating them from the list of fire doors found in the Management Plan because they contain no suspect material.

However, there are still some fire doors that are assumed to contain asbestos and they are still part of the Management Plan. Their locations can be found by looking in the Asbestos Location Section found in the front of this book.

Bruce Johns 6-5-95

(: :

FIRE BRICK & BOILER GASKETS

THREE YEAR RE-INSPECTION 2010

DESIGNATED PERSON INFORMATION AND REINSPECTION APPROVAL

Designated Person:

Mark Chrusciel Manager of Maintenance GRAND RAPIDS PUBLIC SCHOOLS 900 Union Street, NE Grand Rapids MI 49503

Telephone Number: (616) 819-3010

Stocking Elementary School 863 Seventh NW

Building Name

This statement certifies that the three year re-inspection has been conducted by accredited persons and in accordance with the AHERA regulations. I have reviewed the revised plan, the recommended response actions and schedules, and approve for implementation.

Mark Chrusciel Manager of Maintenance

Signature

6-10-10

Date

THREE YEAR RE-INSPECTION 2010

This re-inspection was done in accordance with AHERA Act 763.85, Part B. All known Asbestos Containing and all assumed Asbestos Containing Material listed in the Management Plan was visually inspected to determine if there has been a change in the condition of the material from an undamaged state, to one showing damage.

The visual inspection was performed by Bruce Johnson and Richard Natte on the entire building with the use of the Management Plan, along with the past reinspections and all of the 6 months surveilances, to determine if there has been changes in the physical condition of any ACBM, and to assure that all past response actions and schedules were met.

Since the inside of this building has no friable ACBM, no assessment is necessary and we recommend all known Asbestos Containing and all assumed Asbestos Containing Material be maintained under an operation and maintanance program.

For quick reference, the ASBESTOS LOCATIONS section gives an updated list of all known or assumed ACBM locations found in this building. However, there may be ACBM located behind walls, above ceilings, or in areas that are not accessible. If ACBM is present in these areas, the condition of it is unknown and this should be a consideration before any remodeling or demolition is started.

THREE YEAR REINSPECTION 2010

Name of accredited inspectors and Management Planners who performed reinspection:

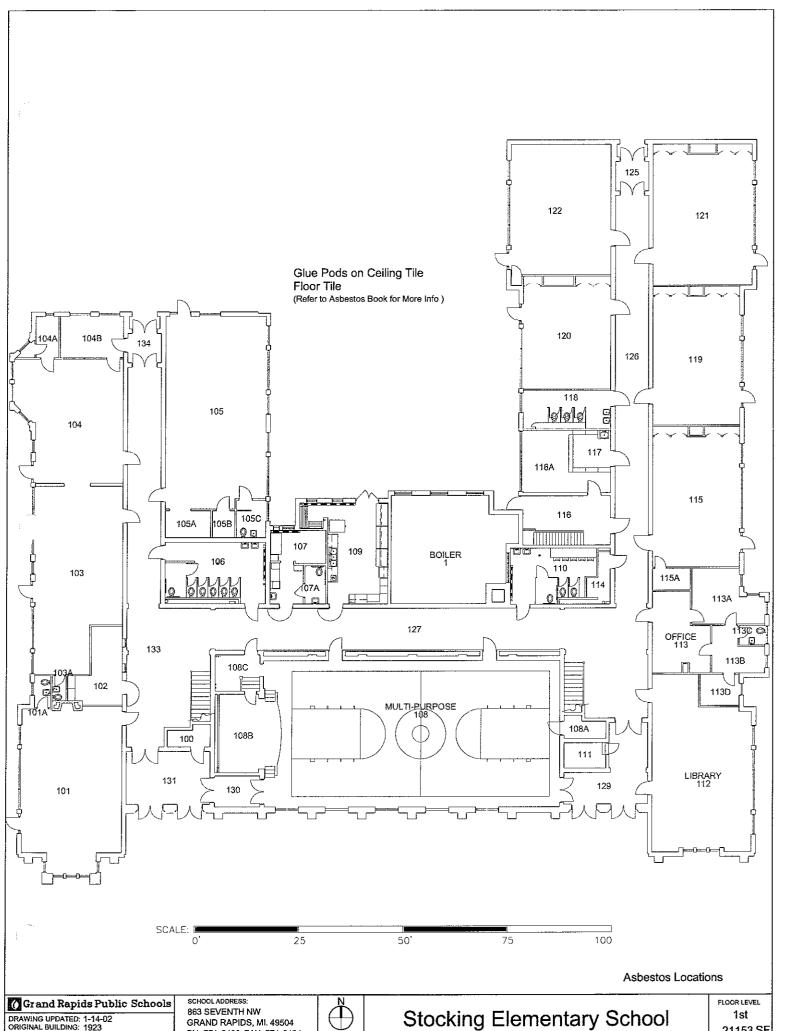
Signature: Bruce Johnson State License Number A7552
State Elective Number A7002
Name: Richard Natte
100
Signature: Rut A Vatt
State License Number A3550
Date: 9-30-10
Duc.

Bruce Johnson

Name:

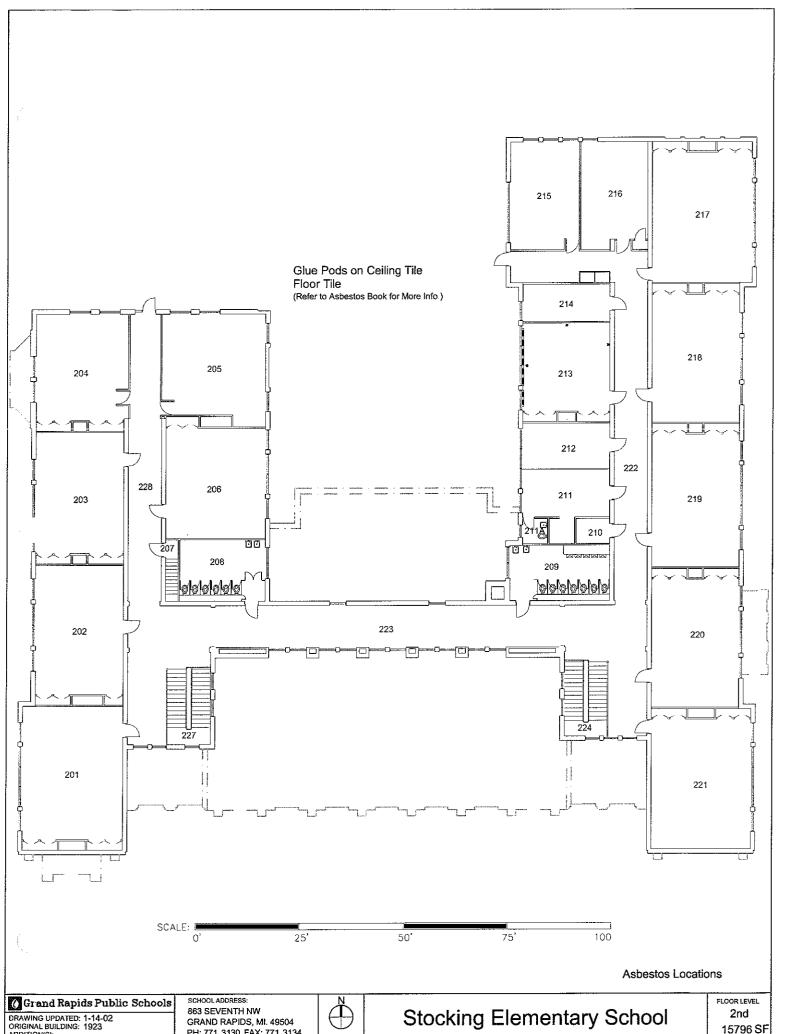
ASBESTOS LOCATIONS

Building _	Stocking	Date April 20, 2004
Type of Mat	terial Floor Tile 9" x 9" and 1	2" x 12"
Friable asbe	stos or non-friable asbe	Assumed to contain asbestos X stos X , 113B, 113D, 122, 126, 127, 133, 222, 223, 228
Type of Mat	terial Glue Pods on 12" x 12"	Ceiling Tile
Friable asbe	rstos or non-friable asber Rooms 101, 103, 104, 105, 10 202, 203, 204, 205, 206, 211, 2	Assumed to contain asbestos X stos X 5A, 108, 111, 112, 113, 113A,B, 115, 119, 120, 121, 213, 215, 216, 217, 218, 219, 220, 221, 126, 127, 133,
Type of Mat	terial FIRE BRICK	
Known to co		Assumed to contain asbestos Stos
Type of Mat	erial <u>Zo<i>ILEE GASKE</i></u>	TS
Known to co		Assumed to contain asbestos stos
There also m	nay be asbestos containing mate	rials in walls or above ceilings or behind barriers unknown
		rformed a reassessment of that area must be done first be in activity section of Management Plan at start of work.



DRAWING UPDATED: 1-14-02 ORIGINAL BUILDING: 1923 ADDITION(S):

863 SEVENTH NW GRAND RAPIDS, MI. 49504 PH: 771.3130 FAX: 771.3134



DRAWING UPDATED: 1-14-02 ORIGINAL BUILDING: 1923 ADDITION(S):

GRAND RAPIDS, MI. 49504 PH: 771.3130 FAX: 771.3134





APPENDIX K

FEMA AND NWI MAP



U.S. Fish and Wildlife Service

National Wetlands Inventory

Dec 21, 2011

Wetlands

Freshwater Emergent

Freshwater Forested/Shrub

Estuarine and Marine Deepwater

Estuarine and Marine

Freshwater Pond

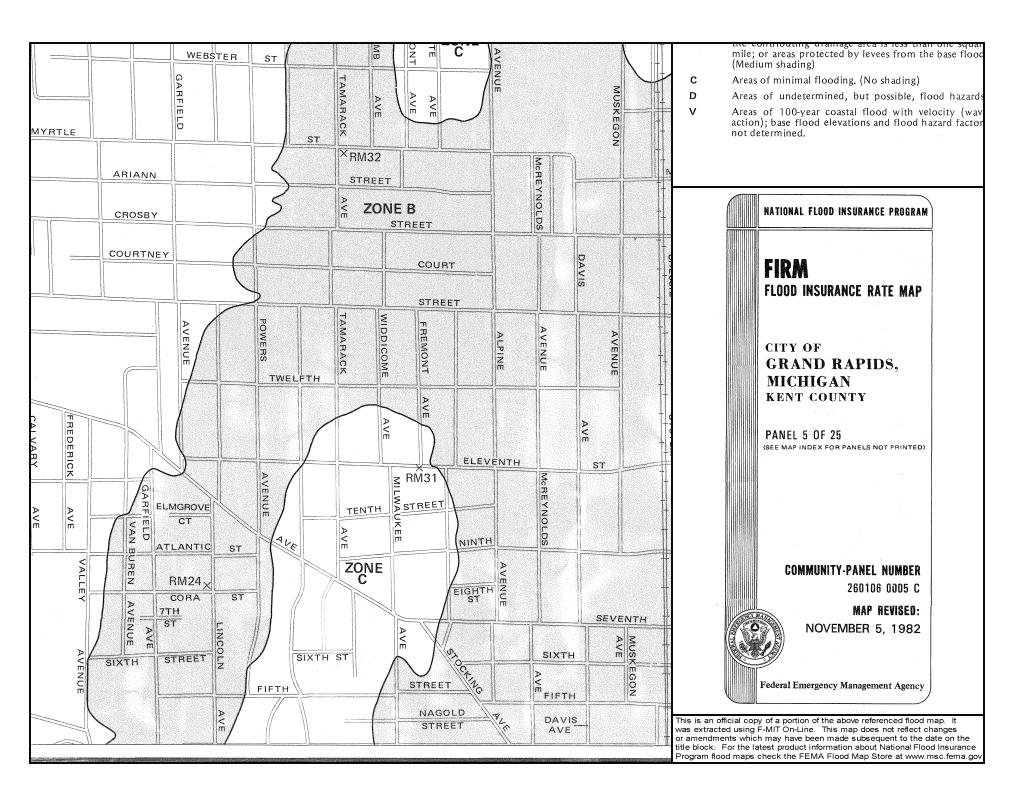
Lake

Riverine

Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:





APPENDIX L

NOISE ASSESSMENT SURVEY

Worksheet A Site Evaluatio	n			Noise Assessment Guidelines
80	o3 Seventh St. 1	VW, Gr	and Rapids, A	11
Site Location			, , , , , ,	
Program				
Project Name				
Locality				
File Number				
Sponeor's Name				Phone
Street Address				City, State
	Acceptability Gategory	DNL	Predicted for Operations in Year	
1. Roadway Noise				
2. Aircraft Noise	ACLEPTABLE	455		
3. Railway Noise	NORMALLY UNNAL.	MA 65		
Value of DNL for all n combination proced	noise equirces: (see page 3 for ure)	700 66	,	
Final Site Evaluation	on (circle one)			
Acceptable				
Normally Unaccepta	ble			
Unacceptable				
Signature	eah Morrisa	1		Date Dec 22,2014

Clip this worksheet to the top of a package containing Worksheets 8-E and Worksheets 1-7 that are used in the site evaluations

List all eirports within 15 miles of the site:		4.5		
1. Gerald R. Ford Interr		•		
2 Riverview Airport				_
3				No-
Necessary Information:	Airport 1	Airport 2	Airport 3	
Are DNL, NEF or CNR contours available? (yes/no)	Yes	No	-	-
Any supersonic aircraft operations? (yes/no)	No	NO		The state of the s
3. Estimating approximate contours from Figure 3:				
a. number of nighttime jet operations	NIA	NIA		-
b. number of deytime jet operations				-
c. effective number of operations (10 times a + b)				
d. distance A for 65 dB				-
70dB				-
75 dB				-
e. distance B for 65 dB				•
70 dB				
75 dB				
4. Estimating DNL from Table 2:				
a. distance from 65 dB contour to flight path, D1	N/A	N/A		
b. distance from NAL to flight path, D ²				
c. D ² divided by D ¹				
d. DNL				
i. Operations projected for what year?	2005	2009		
3. Total DNL from all airports		265	,	
and Yeah Morriso	<u>~</u>			Dec 22, 2011

Worksheet C Roadway Noise	Page 1				Noise Assessment Guidelines
List all major roads within 1000 feet of the alte:					
1 NONE					
2					
3					
4				·	
Necessary Information	Road 1	Road 2		Road 4	
Distance in feet from the NAL to the edge of the road					
a nearest lane			-		
b. farthest lene					
c. average (effective distance)				-	
. Distance to stop sign					
). Fload gradient in percent					
. Average speed in mph					
a. Automobiles					
b. heavy trucks - uphili					
c. heavy trucks - downhiti					
24 hour average number of automobiles and medium trucks in both directions (ADT)					
a. automobiles					
b. medium trucks					
c. effective ADT (a + (10xb))					
24 hour average number of heavy trucks					
a. uphili					
b. downhill					
c. total					
Fraction of nighttime traffic (10 p.m. to 7 a.m.)					
Proffice and the state of the s					

Worksher Roadway			Page 2		Motor Assessment Quidatines				
Adjustment	for Automobil	n Traffic							
	9 Stop and-go Table 3	10 Average Speed Table 4	11 Night- Time Table 5	12 Auto ADT (line 5c)	Adjusted Auto ADT	14 DNL (Workshar	15 Barrie (1) Atlant	r F	16 Partial ONL
Road No. 1	-	x	_ x	_x				=_	
Road No. 2		x	_ x	_ X	=			=_	
Road No. 3		X	_ x	_x				=	
Road No. 4		_ x	_ x	х	-			=_	
Adjustments	tor Heavy Truc	k Traffic			-				
***************************************	17 18 Av Gradient Sp Table 6 Ta	erage Truck	20 21	22 Stop and-go Table 8	23 Night- Time Table 5	24 Adjusted Truck ADT	25 DNL (Work- chart 2)	26 Berrier Attn.	27 Partial DNL
-Uphili	X	x=							
Road No. 1			Add	x	_x			-	_ •
-Downhill	_	x=							
-Uphill	X	x =							
Fload No. 2			Add	x	_ x	ins		_	=
Downhill	_	X =	 						
-Uphill	X	X=							
Road No. 3			Add	_ x	_x	=			_ =
Downhill	_	x=							
-Uphili	X	X *-							
load No. 4			Add	_ ×	_ X	jo		***	, =
Downhill	_	X=_							
ombined Auto	omobile & Hear	ry Truck ONL							
load No. 1	Road	No. 2	Road No. 3		I No. 4	Total DN All Road	-		
ignature	000e y	rahl	lorusa	g~		Date	Dec 2:	2,2011	

Worksheet D Railway Noise	Page 1		Holee Assessment Quidelines
List All Reliways within 3000 feet of the site:			
1. (SX Rail Road			
2		elliga blassilda nassaskilans tillipassasiana på esp. kvp.	
3			
decessary information:	Rathway No. 1 Rethrey No. 2	Pallway No. 3	
. Distance in feet from the NAL to the railway t	reck: 1800 FT		
Number of trains in 24 hours:			
8. diesel	15		
b. electrified	0		
Fraction of operations occurring at night (10 p.m 7 a.m.):	50%		
Number of dieset locomotives per train.	2	¥ 100	
Number of rail cars per train:			
a. diesel trains	50		
b. electrified trains	6		
Average train speed:	25		
Is track welded or bolled?	N		
Are whietles or homs required for grade crossings?	Yes		

Worksheet Railway Noi	_	Page 2				Noise Assessment Guidelines			
Adjustments fo	or Dissel Loco	motivee					· · · · · · · · · · · · · · · · · · ·		
	9 No. of	10 Average	11	12 Night-	13 No. at	14	15	16	17
	Locomptives 2	Speed Table 9	Home (enter 10)	time Table 5	Trains (line 2a)	Adi. No. of Opns.	DNL Workshart 3	Barrier Attn.	Partiel DNL
Flailway No. 1	2	x 1.25	x <u>10</u>	x 2,34	x 15	<u> </u>	le le	NIA	- ma ce ce
Railway No. 2		x	x	x	. x	=		-	
Flailway No. 3		X	×	x	¥	_			
	r Reilwey Cairs 18 Number of cars 50	or Repid Tra 19 Average Speed Table 10	20 Bolled Palls (enter 4)	21 Night- time Table 5	22 No. of Trains (Lin 2s or 2b)	23 Adj. No. of Opns.	24 DNL Work- chart 4	25 Barrier Attn	26 Partial DNL
Railway No 1	-1	x 6.72	x NIA	2.34	x _ 15	_ 25	450	N/A	_ 450
Railway No. 2		x:	۲)	·	x	=			=
Railwey No. 3		x;	· ›	·	x	=			=
Sombined Loco	motive and Re	hway Car DH							
tailway No. 1	76								

signam Yell	Morrison	Dec 22,7011



APPENDIX M

CERTIFICATE OF INSURANCE

Terra Insurance Company (A Risk Retention Group) Two Fifer Avenue, Suite 100 Corte Madera CA 94925



CERTIFICATE OF INSURANCE

DATE

01/23/12

NAME AND ADDRESS OF INSURED

Neyer, Tiseo & Hindo, Ltd. DBA NTH Consultants, Ltd. 608 S. Washington Lansing, MI 48933

This certifies that the "claims made" insurance policy (described below by policy number) written on forms in use by the Company has been issued. This certificate is not a policy or a binder of insurance and is issued as a matter of information only, and confers no rights upon the certificate holder. This certificate does not alter, amend or extend the coverage afforded by this policy.

The policy of insurance listed below has been issued to the insured named above for the policy period indicated. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policy described herein is subject to all the terms, exclusions and conditions of such policy. Aggregate limits shown may have been reduced by paid claims.

TYPE OF INSURANCE	Professional/Environmental Liability				
POLICY NUMBER 212075	EFFECTIVE DATE 01/01/12	EXPIRATION DATE 12/31/12			
LIMITS OF LIABILITY	\$1,000,000 EACH CLAIM \$2,000,000 ANNUAL AGGREGATE				

PROJECT DESCRIPTION

74-090095-Grand Rapids EPA Brownfield Grant

CANCELLATION If the described policy is cancelled by the Company before its expiration date, the Company will mail written notice to the certificate holder thirty (30) days in advance, or ten (10) days in advance for non-payment of premium. If the described policy is cancelled by the insured before its expiration date, the Company will mail written notice to the certificate holder within thirty (30) days of the notice to the Company from the insured.

CERTIFICATE HOLDER

ISSUING COMPANY: TERRA INSURANCE COMPANY (A Risk Retention Group)

Michigan State Housing Development Authority 735 East Michigan Avenue Lansing, MI 48912

President